

EOS Conferences at the World of Photonics Congress 2015:

3rd Conference on Optofluidics (**EOSOF**)

EOS Conference on Light Engineering (**EOSLE**) **NEW!**

EOS Conference on Optomechanical Engineering (**EOSOME**) **NEW!**

4th EOS Conference on Manufacturing and Testing of Optical Components (**EOSMTOC**)

4th EOS Conference on Manufacturing and Testing of Optical Components (EOSMTOC)

General Chairs

Klaus-Friedrich Beckstette (DE)
Oliver Föhnle - FISBA Optik AG (CH)

Program Committee

Frank Frost, Leibniz Institute of Surface Modification IOM (DE)
Alexandre Gatto, Carl Zeiss Jena GmbH (DE)
Roland Geyl, Sagem SA (FR)
Thomas Mitra, LIMO Lissotschenko Mikrooptik GmbH (DE)
Sven Schröder, Fraunhofer Institute for Applied Optics and Precision Engineering IOF, Jena (DE)
Rainer Tutsch, Technical University Braunschweig (DE)
David Walker, OpTIC Glyndwr Ltd. (UK)

Plenary speaker (in joint session with SPIE)

Greg Forbes, University of North Carolina at Charlotte (AU)

Invited speakers (list to be completed)

Christoph Menke, Carl Zeiss (DE)
G. Michael Morris, RPC Photonics, Inc. (US)
Sven Schröder, Fraunhofer IOF (DE)
Michael Schulz, Physikalisch-Technische Bundesanstalt (DE)

Synopsis

Advancements in technology and innovative manufacturing processes are crucial for optical sector growth in today's global markets. Markets with high developmental momentum include the energy and semiconductor, life sciences, health care and the agri-food industries. Optical technologies play a crucial role in these markets, the importance of sophisticated but economically priced optical components being vital to new products and applications.

The 4th EOS Conference on Manufacturing and Testing of Optical Components, EOSMTOC 2015, will highlight significant technology trends, emerging technologies and associated prospective developments. This meeting provides a forum for all aspects of optics fabrication and testing, ranging from micro to large-scale optics and from high value one-off to mass-produced components including lessons learned papers on polishing process stability and finishing processes for high end optics as well as for optics featuring clear apertures below 1 mm.

This time special emphasis is set to the topics Testing as well as Fabrication friendly Optical Design and Tolerancing groundwork for all successful manufacturing aspects. Held in conjunction with the LASER World of PHOTONICS 2015 trade fair, one of the world's largest for optics, it will be a unique opportunity for the exchange of information with renowned researchers, scientists, engineers and professionals from all over Europe!

Sessions

I. High-Volume Manufacturing, Micro-Optics and Structured Surfaces

Session Chairs:

Stefan Bäumer, TNO (NL)
Reinhard Völkel, Süss Microoptics (CH)

Topics:

Wafer level optics
Glass and Polymer molding
Modules made from molded optics
Micro-optics for illumination systems and laser beam shaping
Manufacturing technologies: mastering, tooling, replication
Lithographic processing and etching
Diffractive optics element design and fabrication
Micro-optics on curved substrates
Smart micro-optics incl. multilayered coatings
Gratings and holographic optical elements
Fabrication and packaging of micro-optical components
Integration of silicon and glass-based components
Gratings / Micro-optics with low stray light
Micro-texturing technologies
Engineered diffusers

II. Precise Optics Fabrication

Session Chairs:

Ramona Eberhardt, Precision Engineering, FhG-IOF (DE)
Oliver Föhnle, FISBA Optik AG (CH)

Topics:

Abrasive processes and machines
Precision grinding
High end polishing processes, e.g. for laser optics
Stability of polishing processes

Lasers as manufacturing tools
Replication technologies
Glass molding processes
(Ductile) grinding of molds
Polishing of molds
Local polishing and figuring techniques
Ion beam figuring and polishing
Plasma processes
Jet polishing
Diamond machining and machines
Single point cutting
Fly cutting
Micro milling
Reflection and diffraction hybrid optical element and system technology
Freeform Optics / Large Optics
Processes and machines for freeform optical elements
Monolithic optics
Data exchange chain for freeform production
Mini optics fabrication (0.2 mm < clear apertures < 1 mm)

III. Testing for Fabrication and Assembly

(Joint Session with SPIE Optical Metrology)

Session Chairs:

Jean-Michel Asfour, Dioptic GmbH (DE)
Christof Pruss, ITO Uni. Stuttgart (DE)

Topics:

Measurement of aspheric and freeform optical surfaces
Alignment processes and systems for complex optical systems
Measurement of micro-structured surfaces for optical element fabrication
In-process/in-machine measurement for improved optical production
Calibration of measurements on high precision optical surfaces
Generation and measurement of fiducials over the whole production chain
Metrology for wafer level assembly processes
Metrology tools for assembly and alignment
Aberration retrieval

IV. Fabrication friendly Optical Design and Tolerancing

Session Chairs:

Greg Forbes, QED (AU)
Norbert Kerwien, Carl Zeiss (DE)

Topics:

Surface descriptions, optimization algorithms and techniques
Freeform optics design theory and methods
Freeform optics application in optical imaging and lighting system
As Built Performance Optimization
Fabrication adapted tolerancing methods
New methods for Integration of design, manufacturing, and metrology

EOS Conference on Optomechanical Engineering (EOSOME) **NEW!**

Synopsis

The aim of this EOS Conference will be to explore new developments in the field of advanced optomechanical engineering. Held in conjunction with the LASER WORLD of PHOTONICS 2015 trade fair, one of the largest for optics, it will be a unique opportunity for the exchange of information with renowned researchers, scientists, engineers and professional from all around the world.

General Chairs

Santiago Royo, Centre for Sensors, Instruments and Systems Development (CD6), UPC-BarcelonaTech (ES)
Michael Pfeffer, University of Applied Sciences Ravensburg-Weingarten (DE)

Program Committee

Bob Breault, BRO Inc. (US)
James H. Burge, College of Optical Sciences, The University of Arizona (US)
Chris Dainty, University College, London (UK)
Marta C. de la Fuente, INDRA Systems (ES)
Alson E. Hatheway, AEH Inc. (US)
Peter Kühmstedt, Fraunhofer IOF Jena (DE)
Ramon Navarro, ASTRON (NL)
Paul R. Yoder, Jr., Consultant (US)

Plenary Speaker

Victor Genberg, President, Sigmadyne, Inc. (US)

Invited speakers

Hans Peter Herzig, EPFL (CH)

Submissions are encouraged in the following areas (topics include but are not limited to):

Computation in optomechanical systems design

Software interfacing: lens design/CAD-FEA
Optomechanical Finite Element Analysis
Integrated optomechanical engineering

Environmental influences

Thermal management of optoelectronic and electro-optical systems
Vibrational management of optical systems
Management of extreme environmental influences (ionizing radiation, UHV, zero-g-load) on optical systems

Optomechanical components

Thermal and mechanical properties of optical materials
Flexible and deformable optical elements
Thermo-mechanical properties of optical coatings
Extreme low-stress optomechanical mountings
Active optomechanical mountings
Optomechanical image stabilizer

EOS Conference on Light Engineering (EOSLE) **NEW!**

Synopsis

The focus of this Conference will be to explore new developments in the field of light engineering for a variety of applications, including solid state lighting. Held in conjunction with the LASER WORLD of PHOTONICS 2015 trade fair, one of the largest for optics, it will be a unique opportunity for the exchange of information with renowned researchers, scientists, engineers and professional from all around the world.

General Chairs

Paul Urbach, Delft University of Technology (NL)
Stephan Malkmus, OSRAM GmbH (DE)

Program Committee

Dick K.G. De Boer, Philips Research (NL)
Fabian Duerr, Vrije Universiteit Brussel (BE)
Joerg Frischeisen (OSRAM GmbH)
Jaime Gomez Rivas, FOM Institute AMOLF (NL)
Willem L. Vos, Complex Photonic Systems (COPS), Twente University (NL)

Invited Speakers

Reinder Coehoorn, Philips Research, TU Eindhoven (NL)
Stefan Illek, OSRAM OptoSemiconductor (DE)
Andreas Waag, TU Braunschweig (NL)
Rolf Wester, Fraunhofer ILT (DE)

Submissions are encouraged in the following areas (topics include but are not limited to):

LEDS
OLEDS
Phosphors
Non-imaging optics
Nano-optics
Diffractive optics for SSL
Optical materials
Optical design
New materials
Color quality
Nano-structuring of (O)LEDs
Lifetime and stability
Microfluidic lasers



3rd EOS Conference on Optofluidics (EOSOF)

Synopsis

The EOS Conference on Optofluidics has been a success from the start, with participation from the leaders in the optofluidics community from all around the world. The 3rd EOSOF will build on this, involving experts from the industrial and academic research sectors and explore the latest developments in the field of optofluidics.

General Chairs

Demetri Psaltis, Ecole Polytechnique Fédérale de Lausanne (CH)
Andreas Vasdekis, University of Idaho (US)

Program Committee

Aram Chung, Rensselaer Polytechnic Institute (US)
Anders Kristensen, Technical University of Denmark (DK)
Uriel Levy, Hebrew University of Jerusalem (IL)
Zhenyu Li, George Washington University (US)
Timo Mappes, Carl Zeiss AG (DE)
Holger Schmidt, UC Santa Cruz (US)

Invited Speakers (list to be completed)

Yves Bellouard, Eindhoven University of Technology (NL)
Dieter Braun, LMU (DE)
David Erickson, Cornell University (US)
Pietro Ferraro, Istituto Nazionale di Ottica (IT)
Silvain Gigan, Université Pierre et Marie Curie (FR)
A. Q. Liu, Nanyang Technological University (SG)
Christopher Moser, EPFL (CH)
Aydogan Ozcan, UCLA (US)
David Sinton, University of Toronto (CA)
Peter So, MIT (US)
Changhuei Yang, Caltech (US)

Submissions are encouraged in the following areas (topics include but are not limited to):

Optofluidic principles, applications and technologies for:

Photonics

sensors, light sources, microscopy, tweezers, non-linear optics

Handheld Devices

microscopes, sensors, diagnostics

Energy – Environment

photobioreactors, optofluidics of plants

Transport – Technology

mass transport, microfluidics, microfabrication, computational methods

Hybrid Integration

microfluidics, electronics, waveguides, SERS substrates, applications

Soft Matter

liquid crystals, vesicle photonics

Medicine and Biology

diagnostics, spectroscopy, single cell methods, drug delivery

Industry

industrial applications and related technologies

Abstract Submission

Abstracts can only be submitted online via Conftool:
<https://www.conftool.com/wpc2015-eosconferences>

Authors are requested to submit an extended abstract of two pages. The abstract must be formatted according to the EOS abstract guidelines:

<http://www.myeos.org/events/WPC2015>

Contributions will be accepted for oral and poster presentation. Please indicate your preference. At least one author of an accepted contribution is asked to register in advance, separately from abstract submission.

Paper Publication in JEOS:RP

Attendees of EOS Conferences in Munich receive a 20% discount on the publication rate for the Journal of the European Optical Society - Rapid Publications (JEOS:RP). The paper submitted must be an original contribution that is connected to this Conference and must be submitted no later than 1 September 2015. [www.jeos.org]

Publication rates:

320 € (instead of 400 €) for non-members

280 € (instead of 350 €) for full EOS members

Important Dates

Abstract submission deadline **EXTENDED** 1 March 2015

Notification to authors 13 March 2015

Registration opens beginning of March 2015

World of Photonics Congress 2015

EOSOF, EOSLE, EOSOME, AND EOSMTOC will be taking place under the umbrella of the World of Photonics Congress (21-25 June 2015), the leading international congress for optical technologies in Europe and one of the top 3 congresses of its kind worldwide. It is organised by Messe München International and held in conjunction with LASER World of PHOTONICS (22-25 June 2015), the international trade fair for optical technologies including components, systems and applications, so there is an intense exchange between the scientific and industrial sectors. [www.world-of-photonics.de]

Venue

ICM - International Congress Centre Munich
Messegelände, 81823 München, DE

The International Congress Centre Munich (ICM) is integrated into the Munich Trade Fair Centre and is one of the most modern congress centres in the world. It can easily be reached by public transport.

Registration

The registration for EOSOF, EOSLE, EOSOME, and EOSMTOC includes admission to all conferences at the World of Photonics Congress as well as to the LASER World of Photonics trade fair. At least one author of an accepted contribution is required to register in advance to the conference. The pre-registration opens in March 2015.

Contact

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In co-operation with:

SPIE.



Call for Papers

MUNICH ICM
International Congress
Centre Munich, Germany

June 22-25, 2015

www.myeos.org/events/WPC2015

www.photonics-congress.com

JUNE 21-25, 2015, MESSE MÜNCHEN

22nd International Congress on Photonics in Europe—
collocated with LASER World of PHOTONICS 2015

WORLD OF PHOTONICS CONGRESS